

OBSERVATIONS OF THE AMETHYST PYTHON (*MORELIA AMETHYSTINA*) FEEDING ON RAINBOW BEE-EATERS (*MEROPE ORNATUS*). *Memoirs of the Queensland Museum* 38(2), 504, 1995. Observations on feeding by arboreal snakes are poorly documented. Members of *Morelia* are primarily nocturnal, rock inhabiting and/or arboreal snakes that commonly bask during daylight hours. Amethyst pythons (*Morelia amethystina*) eat a wide variety of vertebrates (Cogger, 1992), including birds and mammals (Wilson & Knowles, 1988).

Amethyst pythons were observed eating rainbow bee-eaters (*Merops ornatus*; length 230–280mm (Lowe, 1989)) measured as the distance from the tip of the bill to the tip of the tail, rounded to the nearest 5mm, and where a bill or tail is unusually long, as with the rainbow bee-eater, its form is included in the length) on Milman Island (11°10.3'S, 143°00.8'E; Great Barrier Reef Marine Park Code 11-007), a vegetated sand cay located approximately 112km southeast from Thursday Island, Torres Strait and 45km northeast from Orford Ness, Queensland, Australia.

All feeding observations took place between 0600h and 0900h on 19 March and 21 March, 1994. Up to four pythons had been observed simultaneously stretched out on the defoliated branches of *Premna serratifolia*, first on 10 March, and then 18–23 March. The snakes appeared camouflaged, their bodies curving so they blended with branches of the shrub.

The first observation was of an adult rainbow bee-eater (extended central tail feathers) within the coils of a python at 0645h on 19 March. The python moved approximately 2 m down the branch before swallowing the bird. This sequence took approximately 25 minutes. Then the snake moved back to the top of the branch. Another rainbow bee-eater landed on the branch above the snake, but flew off as the python moved towards it. The snake retreated down the branch (approximately 2m) and curled up in a fork in the shrub. The following day (20 March) the snake did not appear to move. On 21 March, at 0815h the same python caught a juvenile rainbow bee-eater (central tail feathers not extended). The snake swallowed this bird in 5.5 minutes. The snake was the same one observed on 19 March, because the bulge made from eating the first bird was still visible, and the snake was on the same branch. After swallowing the juvenile bird, the snake slithered back up the branch and waited for 40 minutes, apparently trying to catch another bird. Even though other rainbow bee-eaters were flying around its head, the python did not catch any. Rainbow bee-eaters catch their prey (flying insects) by "hawking", returning to perch and batter their prey before ingesting it (MacDonald, 1973). This method would bring the birds into contact with hunting snakes. White-breasted woodswallows (*Artamus leucorhynchus*; length 170–180mm), yellow-bellied sunbirds (*Nectarinia jugularis*; length 110–115mm), and a spangled drongo (*Circus brachyotus*; length 280–320mm) (Lowe, 1989) all landed nearby. These may also be preyed upon. The white-breasted woodswallows appeared to swoop at/near the snake in alarm.

Although the snake was not caught and measured, the size of the python (1.25–1.50m in total length) observed feeding on the rainbow bee-eaters appeared to be in the smaller range for records on Milman Island. Six females measured had a total length ranging from 124.5–261.0cm and three unsexed pythons measured had a total length ranging from 60.0–220.0cm.

Rainbow bee-eaters are a migratory species in the western South Pacific Ocean area. They move from their southern breeding areas in Australia to over-winter in Torres Strait and Papua New Guinea (Blakers et al., 1984). Although the distribution of rainbow bee-eaters is dependent on the abundance

TABLE 1. Summary of Amethyst Python (*Morelia amethystina*) measurements collected from snakes caught on Milman Island, northern Great Barrier Reef, Queensland, Australia. Sex was determined by examination of spur size and attempted eversion of hemipenis. ? = Sex was not determined. Abbreviations: HL=Head length, SVL=Snout length, VTL=Vent to tail length, TL=Total length. All measurements are in centimetres.

Date	HL	SVL	VTL	TL	Sex
5 Feb 1992				60.0	?
8 Feb 1992		145.0	28.0	173.0	?
10 Feb 1992		223.0	38.0	261.0	Female
12 Feb 1992		150.0	31.0	181.0	Female
19 Feb 1992		185.0	35.0	220.0	?
7 Mar 1994	5.5	184.5	35.5	220.0	Female
10 Mar 1994	3.8	103.8	20.7	124.5	Female
17 Jan 1995		149.0	26.0	175.0	Female
19 Jan 1995		111.5	22.5	134.0	Female

of insects (Blakers et al., 1984), it is not known how long the rainbow bee-eaters stay at Milman Island. The island supports a seasonal nesting colony of Torres Imperial Pigeons (*Ducula bicolor*; length 380–440mm) (King, 1990), as well as numerous pairs of yellow-bellied sunbirds. All of the birds mentioned are small enough to be possible food sources for the snakes, although consumption of these other species has not been observed. When rainbow bee-eaters are not present on Milman Island, the pythons must prey on other species. Because there are no mammals on Milman Island, considered a common prey for amethyst pythons (Cogger, 1992), the pythons are probably feeding on other birds, including ground nesting species, found on the island.

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